

## OR-6

**DETRIFLUOROACETYLATION OF ETHYL 2-(ETHOXYMETHYLENE)- 4,4,4-TRIFLUORO-3-OXOBUTANOATE**

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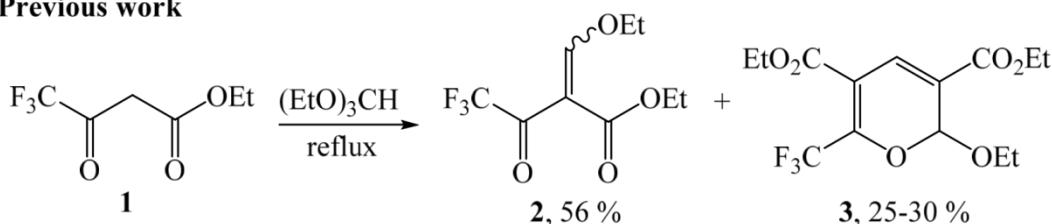
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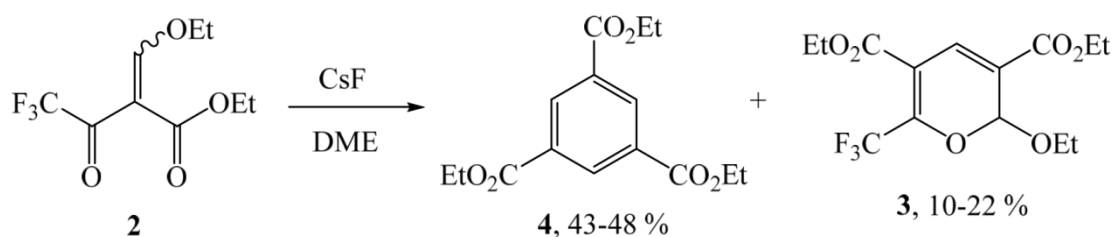
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**Abstract.** Trifluoroacetyl group is one of the widely used functionalities in organic synthesis. Its incorporation into the molecules provides numerous fluorinated building blocks, such as enones, 1,3diketones, heterocyclic derivatives. Elimination of the CF<sub>3</sub>C(O) moiety is usually unexpected and, therefore, such process has scarcely been reported in literature [1,2]. In this work, we demonstrate the synthetic potential of the detrifluoroacetylation in the construction of symmetrical trisubstituted benzene from the 2-ethoxymethylene derivative of fluorinated 3-oxoester (Scheme). The possible mechanism and observed pathways of this transformation will be discussed.

**Previous work**



**In this study**



**Figure.** Transformations of 3-oxoester and its derivative under detrifluoroacetylation

**References**

1. Kudyakova, Yu. S., Bazhin, D. N., Slepukhin, P. A., et al. (2017). Unexpected formation of diethyl 2-ethoxy-6-CF<sub>3</sub>-2H-pyran-3,5-dicarboxylate from the condensation of ethyl 4,4,4-trifluoroacetoacetate with CH(OEt)<sub>3</sub>. *Tetrahedron Lett.* Vol. 58, Iss. 8. pp. 744–747.
2. Bazhin, D. N., Kudyakova, Y. S., Nemytova, N. A., et al. (2016). Detrifluoroacetylation of 4,4,4-trifluoro-3,3-dihydroxy-2-(hydroxyimino)butan-1-ones as a convenient synthetic strategy for acyl cyanides. *J. Fluor. Chem.* Vol. 186, pp. 28–32.

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